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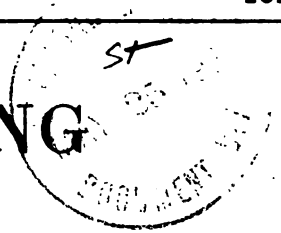
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TRAINING
OF
OFFICERS, NONCOMMISSIONED OFFICERS AND TROOPS
IN
MINOR TACTICS
FOR
SMALL UNITS

PREPARED IN THE
WAR PLANS DIVISION
GENERAL STAFF

GEN. PUB.

May, 1920



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WAR DEPARTMENT,
WASHINGTON, *May 13, 1920.*

The material included in this text has been compiled from the numerous documents in which it has heretofore appeared and is published with a view to directing the attention of officers responsible for the tactical training of officers, noncommissioned officers, and troops in minor tactics, to a system that has been tried out, found successful, and productive of results.

The methods herein are, for the present, to be considered as suggestive only.

It is desired that the system be developed by employment, test, and constructive criticism. To this end suggestions looking toward improvement are invited from officers who may, in the future, have practical experience with it.

Communications should be forwarded through military channels to The Adjutant General of the Army.

[062.1, A. G. O.]

BY ORDER OF THE SECRETARY OF WAR:

PEYTON C. MARCH,
General, Chief of Staff.

OFFICIAL:

P. C. HARRIS,
The Adjutant General.

4

4

TRAINING OF OFFICERS, NONCOMMISSIONED OFFICERS, AND TROOPS IN MINOR TACTICS.

1. The tactical training of officers and noncommissioned officers and troops in minor tactics covers five phases:

- (1) Talks and conferences on the several subjects.
- (2) Map problems.
- (3) Map maneuvers.
- (4) Tactical walks.
- (5) Tactical exercises.

2. The four preliminary phases of training in minor tactics should lead up in logical sequence to the fifth phase—tactical exercises. To this end the map problems and map maneuvers should, wherever practicable, be fitted to maps of the country in the vicinity of the station of officers and noncommissioned officers pursuing the course. The tactical walks will of necessity be conducted over ground in the immediate vicinity and which may be reached without undue expenditure of time.

3. *Illustration of the system.*—We desire to conduct a course of training in the subject of "Outposts."

(a) The class is given a talk on the subject by the instructor covering the salient points.

(b) Prepare a map problem along the lines indicated in paragraphs 7 to 11, involving as the requirements: (1) An estimate of the situation; (2) the orders for the establishment of the outpost; (3) a tracing showing the location and composition of the several elements of the outpost.

Additional situations may be included which require more details with respect to the establishment of the smaller elements of the outpost, such as supports, outguards and sentinels, disposition of prisoners, the reception of flags of truce, and the conduct of outpost duty.

(c) Prepare a map maneuver in which one side is charged with the establishment of the outpost and the conduct of outpost duty, involving communication, patrolling, covering detachments, reinforcement of threatened points, etc. The other side operates against the outpost with patrols, conducts a reconnaissance in force, makes raids, feints, and attacks. The map maneuver may take the form of either a one-side maneuver, in which the director operates the troops opposing the outpost, or a two-side maneuver, in which groups of students conduct the operation of their respective sides.

(d) Prepare a tactical walk in which the initial situation involves the orders and arrangements for the establishment of the outpost and subsequent situations require the details of the dispositions for covering the posting of the outguards, the establishment of supports and the location and posting of outguards, the selection of sentinel posts and the posting and instructing of sentinels, the detailed instructions for the conduct of visiting patrols, the reception of flags of truce, the handling and disposition of prisoners and deserters from the enemy.

The students are taken out on the ground and required to solve the successive situations in accordance with the conditions of terrain and weather as they actually exist at the time. The solutions may be reduced to writing or may be given orally or a combination of the two methods may be used. Questions are asked until all of the tactics of the situation are brought out. The director explains the dispositions, discusses the several tactical elements of the situations, and finally presents "a solution" for discussion.

By these means tactical situations are presented to the individual student for solution on the terrain itself, and he is given a thorough grounding for his more important duties of troop leading. He is made to realize that he has an individual problem to solve and he is assisted in the solution of it.

(e) The final step in the training consists of a tactical exercise with troops, preferably over the same ground and under the same tactical situation that was employed in the tactical walk. This permits the student to put into actual practice with troops the things that he has been over during the tactical walk. After the outpost has been established and is in operation another force may be employed to operate against it with patrols, with a relatively strong body of troops as a reconnaissance in force or a raid against a selected part of the line. Deserters may be sent in to give the students practice in the details of their reception and disposition. "Parliamentaires" may be sent in under the protection of a flag of truce. When practicable, this phase of training may be started in the afternoon and continued into the night, thereby giving the officers and troops experience in the conduct of outpost operations both by day and by night.

4. The other subjects included in the domain of minor tactics may be carried out along this same general line. They include:

- (a) Advance guards.
- (b) Flank guards.
- (c) Rear guards.
- (d) Scouting and patrolling.
- (e) Establishment of detached posts.
- (f) Approach march and deployment.
- (g) Combat.

5. Such a course of training will prepare officers and noncommissioned officers for the intelligent performance of their duties during the period of summer outdoor training of troops and maneuvers and, what is more to the point, prepare them for troop leading in time of war. It emphasizes the fact that every man participating in a military operation has his individual problems to solve and gives him practice in arriving at a solution of them. Only a genius is competent to lead a body of troops in operations against an enemy until he has had such a course of training. Any officer or noncommissioned officer will be more competent to lead his command after he has pursued such a course of training.

MAP PROBLEMS.

6. Map problems provide a means for the study of minor tactics and afford to officers and noncommissioned officers practical training in the application of the tactics of their arm. They are an incentive to study and to the development of judgment in applying correct fundamental principles in the art of troop leading. They accustom officers and noncommissioned officers to making well-considered and definite decisions and give practice in the composition of orders and messages. These problems are an essential preliminary step to map maneuvers, tactical walks on the ground without troops, and tactical exercises, all of which require a thorough practical knowledge of minor tactics and a familiarity with the methods of troop leading.

7. *Preparation of map problems.*—A map problem consists of a general situation and one or more special situations the object of which is to describe the conditions and circumstances surrounding certain troops in a theater of operations and to acquaint the solver with his mission.

8. The general situation outlines the situation in its entirety and provides a background for the particular events to be considered. It contains such information as ordinarily in time of war would be in possession of both combatants.

9. In problems dealing with very small forces, the general situation may usually be embodied in the initial special situation.

10. A special situation describes the location, composition, and conditions of the troops with which the problem deals and gives such information concerning the location, strength, and movements of the enemy as a commander of a small unit might reasonably be assumed to possess were the conditions those of actual warfare. The location and intentions of any supporting troops, condition of weather, roads and terrain, date and hour, in so far as they affect the unit, should be stated.

11. The problem then concludes with a statement of the requirements for solution, including any or all of the following:

- (a) The commander's estimate of the situation.
- (b) A decision.
- (c) A decision and reasons therefor.
- (d) Dispositions.
- (e) His orders.
- (f) A sketch or diagram showing his disposition at a designated hour.

12. The more concisely and forcefully the situations are stated, the nearer the conditions portrayed approach those of actual warfare. The more latitude they allow for the exercise of independent judgment and decision, the better the problem.

13. Problems should be simple and direct, have a definite purpose, and always illustrate some of the features of minor operations.

14. In preparing a course of problems for a season's work the series should be progressive and subjects allotted time in accordance with their practical importance in war. While the duties of covering detachments and protective measures in general should receive consideration, they should not be emphasized at the expense of combat.

15. Problems which admit of solution by attack are especially valuable in developing initiative and aggressiveness.

16. *The solution of map problems.*—An estimate of the situation is merely a sizing up of the situation and involves a consideration of all the military factors affecting the unit involved. Its object is to enable the commander to arrive at a decision as to the best course of action to adopt. Practice in forming estimates of the situation develops the habit of an orderly arrangement and consideration of the pertinent facts and trains an officer to arrive rapidly at a logical and sound conclusion.

17. The elements involved in an estimate of the situation usually include the following:

(a) *The mission.*—That is, the object to be attained by the unit involved as determined by the orders or by the military situation at the moment.

(b) *Considerations affecting the enemy.*—In so far as they affect the unit under consideration, his strength and position, his probable mission and intentions, the means at his disposal for carrying out his mission, and the different courses of action that are open to him.

(c) *Considerations affecting our own forces.*—The composition, strength, and position relative to that of the enemy; the courses of action open for the accomplishment of our mission; consideration of our supporting troops, based on an estimate of what the

enemy is trying to do, and what are the means at our disposal for circumventing him.

(d) *Consideration of the terrain.*—The nature of the terrain over which we are operating; adaptability for offensive or defensive action; communications, both axial and lateral.

(e) *Plans of action.*—A discussion of the several plans of action.

(f) *Decision.*—Based upon all of the above, the commander arrives at a decision as to the course of action he will adopt. Such a plan must be simple, practical, and definite.

18. *Orders.*—Orders should follow the form laid down in the Field Service Regulations:

- (1) Information of the enemy and our own troops.
- (2) The plan of the commander, in general terms.
- (3) Disposition of troops and the orders affecting each element of the unit.
- (4) Administrative arrangements, where applicable.
- (5) Location of the commander or where messages are to be sent.

19. Sketches are frequently a convenient method of showing the detailed dispositions of a command and the location of the elements thereof. They also aid the imagination in picturing on the terrain itself the tactical formations under consideration.

MAP MANEUVERS.

20. Map maneuvers are designed for the purpose of continuing the training of officers and noncommissioned officers during the period of preparatory training for tactical exercises with troops.

21. The character of problems must be suited to the grade of officers and noncommissioned officers undergoing training. The problems and situations proposed for junior officers and noncommissioned officers should rarely, if ever, deal with the immediate action of forces larger than a platoon of Infantry or like unit of the other combatant arms.

22. The primary object of map maneuvers in minor tactics is to cultivate the power of quick, though correct, decision; develop facility in promptly issuing concise, clear orders; writing messages; inculcating initiative; and fostering the offensive spirit by placing officers and noncommissioned officers in situations designed to serve those ends.

23. In any particular case the problem should be suited to the character of the instruction to be imparted and to the degree of preparation or experience of the officers and noncommissioned officers who are to take part in the exercise. It is essential to success that participants be not assumed to have a knowledge or skill which they

do not really possess, lest the exhibition and criticism of inevitable errors destroy their interest and initiative. Beginners must be first taught the technicalities by preliminary instruction in the use of scales and blocks in determining distance and representing troops on the map. They should next be practised in exercises involving the employment of small forces in simple situations.

24. The instruction must be progressive and difficulties mastered step by step.

25. Those participating in map maneuvers are reminded that these exercises are designed for the purpose of training and instruction. The most successful maneuver is the one that affords its participants the greatest amount of practice and instruction and that improves most their capacity for leadership. The mere desire to win should never be permitted to interfere with the real objects of the exercise, as the matter of winning is, in itself, of no importance.

26. *Director.*—The success of map maneuvers and the amount of instruction derived therefrom depend to a great degree upon the skill and ability of the director. The most suitable officers must be selected for this duty, without regard to seniority. Such assistants as may be required are detailed.

27. *One-side maneuvers.*—In the one-side maneuver the director commands the hostile force himself and so employs it as to convey the tactical lessons he wishes to impart. Being under complete control of the director, uninteresting and uninstructional phases of the problem can be passed over rapidly, delays avoided, and the exercise kept at all times within profitable channels.

28. This form of maneuver is especially well adapted to beginners and is an excellent means for conveying elementary instruction in the subject of troop leading and for developing facility in the use of a map. The peculiar merit of this form of exercise lies in its ready adaptability to the exact needs and capacities of those being instructed.

29. In conducting a one-side maneuver the director first outlines and represents the situation on the map. The students are then called on for their opinions as to the action to be taken, orders to be given, methods of executing contemplated measures, etc. The director criticizes these opinions and may call for a discussion of them, after which the movements and measures actually determined upon are announced, additional needful information of the enemy given, and a new situation created. In this manner a succession of events is introduced, discussed, and criticized.

30. Such an employment of the concealed hostile force as to habitually defeat the students is likely to develop undue conservatism and is to be avoided. The use of the one-sided maneuver with students unaccustomed to map maneuvers sometimes develops a feeling among

the students that the director has taken undue advantage by moving troops more rapidly than would be possible in actual movement on the ground, or by assuming them to be in places different from those which it would be possible for them to occupy. This feeling can usually be prevented and the students made to realize that the results from their maneuver are the results that would have occurred with troops moving on the ground, by having several of the students act as assistant directors and thus be able to see all the intentions and movements of troops by the director.

31. *Two-side maneuvers.*—The two-side map maneuver affords a closer approximation to the conditions of war, as there is a contest between hostile forces and an actual opposition of wills. The commanders are allowed freedom of initiative, restricted only by their missions and the requirements of the tactical situation. Errors of judgment and faulty dispositions become apparent by the subsequent course of events and the lessons learned are lasting. Officers are trained not only in making decisions, but are accustomed to bearing the responsibility for decisions.

32. *Preparation of the problem.*—The problem for a map maneuver is drawn up on the same general lines as already described for map problems. A general situation is usually the simplest way of initiating the commanders into those main features of the military situation which would logically be known to both.

33. A special situation is prepared for each commander, which states the troops he is to command, gives their location, the exact hour at which the operations are to begin, and acquaints him with his mission. Some information of the enemy may be included, but usually this is restricted to the results of his own observation and reconnaissance.

34. The employment of the small forces included in the domain of minor tactics permits greater attention to the details of troop leading and a more thorough discussion of the principles involved.

35. When the participants have had but little experience with map maneuvers, or when the problem presents unusual difficulties, the general and special situations may be issued to commanders in advance of the time set for the exercises. Estimates of the situation, or the initial orders, or both, are called for and handed to the director before the exercise begins.

36. With officers of more experience, the problem may be issued at the beginning of the exercise or only sufficiently in advance thereof to permit commanders to familiarize themselves with the map and to determine upon their initial dispositions. This method may be used when it is desirable to devote the full time to giving practice in quickly estimating situations and in promptly forming decisions and issuing orders.

37. *Preliminary arrangements.*—For map maneuvers in minor tactics one map is used, the arrangements for which, together with small-scale maps, blocks, scales, message blanks, paper for orders and sketches, and the necessary textbooks, are attended to by the director.

38. Adjoining rooms, one for each side, furnished with tables, chairs, and writing materials for the use of officers when not at the map, should be provided. When two such rooms, one for each side, are not available, one room will be sufficient, if one portion of the room is assigned to one side and another portion of the room to the other side. An assistant director should be present in the room with each side to insist that commanders, after giving decisions or orders in the main room, do not communicate such decisions or orders to any subordinate unless such information could properly reach the subordinate concerned. (See par. 49.)

39. *General conduct of a map maneuver.*—The situations having been issued to commanders of sides and their subordinate commanders appointed, the former are in turn called to the map and give the director their orders, explain their intentions, and retire. Subordinates are likewise called to the map for their dispositions, orders, and intentions. The director then examines the movements of each separate body of troops and determines which participant is first to receive information likely to cause a new decision and computes time at which such information is received. Such commander is then called to the map and the director states the situation, including the time, location of troops, what has been heard of the enemy, messages received, etc. The commander announces his decision, gives his orders, and withdraws. The director decides upon the results of these orders and dispositions and carries the exercise along until changes in the situation would again probably cause one or more of the commanders to form new decisions. These officers are in turn called to the map and the same steps repeated.

40. The director should not, by his form of question or announcement, suggest to a player that he considers it time for the player to make some change when the latter does not appear to be contemplating one.

41. The movements of troops should be developed in an orderly way and in proper sequence, but unimportant and unimportant phases should be passed over rapidly, in order that the maneuver may not progress too slowly or become tedious. Clear and brief decisions and verbal orders are essential for progress and the maintenance of interest.

42. When most of the troops have become engaged or committed to definite courses of action the director usually calls both commanders with their subordinates to the map, commanders giving their orders

in presence of each other, and the exercise is thus brought to a conclusion.

43. Map maneuvers terminating in a general engagement are, as a rule, discontinued as soon as the greater part of the troops on both sides have been committed to the action. In any case, however, the exercise is carried far enough to illustrate the tactics involved and to show the results of the measures adopted by the commanders.

44. The director should not interfere with the liberty of action and initiative of commanders. Subsequent events will generally demonstrate in a natural manner which dispositions were correct and which faulty, and the lessons be more convincing than if the developments were interrupted by the premature correction and criticism of the director. The latter regulates and oversees the whole maneuver by furnishing commanders with information of the enemy, rendering decisions as to rates of march and results of tactical collisions and interpreting the map as regards visibility, condition of roads, streams, etc. His decisions are final and do not admit of argument on the part of commanders.

45. The value of the maneuver depends materially upon the correct use of the blocks which serve the purpose of showing the participants the positions and dispositions of their own troops and indicate those of the enemy which would in reality be visible. On the terrain, decisions depend largely upon the impression produced by the strength and conduct of the enemy, and it should be the same in a map maneuver. It is therefore essential that the arrangement and subsequent movements of the blocks representing the troops of either side be made only by the director, and after careful consideration as to what he must, or must not, allow to be seen in order to portray the situation accurately.

46. A cardboard or paper covering may be used for the purpose of screening from view blocks representing all or part of the hostile troops so as to prevent either commander from seeing more of the dispositions and movements of his opponent than conditions of the terrain would actually permit. Where, however, such covering would screen from view portions of the map representing sections of terrain which would in reality be visible, or where it gives otherwise unknown information as to the exact region in which hostile troops are located, this method should not be employed, and instead the director, on entrance of a participant, should remove the blocks of the opponents, leaving on the map only those which indicate troops visible to the other.

47. When troops come within sound of or under artillery or rifle fire their commander will be so informed, the director stating the direction, intensity, and duration of the fire, as the case may be.

48. Commanders ordering firing will be required to announce the range, objective, rate, and kind of fire, in accordance with prescribed methods.

49. During the course of the maneuver direct verbal communication between commanders and their subordinates will not be permitted unless they would, in reality, be able to directly address each other. Orders and communications must pass through the director, who computes the time required for delivery and at the proper time communicates them to the person for whom intended.

50. When commanders announce their intentions of issuing written orders or sending written messages, such orders and messages are not prepared while the officer is at the map. Instead he gives the substance of the order or message verbally to the director, who repeats it to the commander, in order to avoid misunderstanding; then, after the proper lapse of time, to the designated recipient. The officer issuing the order may, after retiring from the map, reduce it to written form and hand it to the director when next called to the map. Such written work gives excellent practice in the formulation of orders and messages and should frequently be required.

51. The director may also assume the rôle of an orderly or runner for the transmission of verbal messages, and upon delivery of same submit himself to further examination for any additional information he might in his assumed character possess.

52. An assistant may be appointed to keep tabulated notes—one set for each side—showing at a glance the time, place, and contents of messages or orders and the disposition of the details of events, thus avoiding the delay necessary for reference to written notes. An experienced director will seldom refer to the tabulated notes. However, the assistant director should have such data for use in the discussion, or in the preparation of a discussion, and also for use in checking the computations and the decisions of the director.

53. The exercise concludes with a discussion, in which the director, after stating the strength and mission of each of the opposing forces and giving any explanation of the situation necessary for a clear understanding of the tactical lessons involved, briefly recapitulates the course of events, commenting upon the decisions, dispositions, and orders of the various commanders.

54. This review should be an instructive discussion of the measures, correct and faulty, in the light of their results and should show how mistakes could have been avoided. Criticism should always be constructive, and where measures taken do not meet with the director's approval he should render a definite decision as to what measures would, in his opinion, have been proper in the particular case. This critique at the end of the maneuver will never be omitted.

TACTICAL WALKS.

55. Tactical walks are exercises in which the students carry on the operations of imaginary bodies of troops over actual terrain. As these exercises involve the study of the utilization of the ground itself and the application of tactical formations and methods to it, they are the best means, aside from practical field work with troops, of giving officers and noncommissioned officers practice in carrying out the duties that fall to them in war.

56. In the tactical walk is found the logical step in tactical training between the theory and practice of the classroom and the practical training with troops. This method of training is suited to all arms and services, and in view of its practical value will be frequently employed by unit commanders in the training of their officers and noncommissioned officers.

57. Any class of military operations may be practiced, such as the operation of covering troops—advance guards, flank guards, rear guards, and outposts; the operation of patrols—reconnoitering, combat and visiting; combat-attack and defense; approach march and deployment and tactical cooperation of all special arms.

58. *The director.*—The smooth working and success of the tactical walk depends almost entirely on the ability and tactical knowledge of the director, the care he devotes to the selection of the ground, the preparation of the problem, and his own personal preparation for the conduct of the tactical walk. To this end a study should be made of the tactical training it is desired to impart. A problem designed to bring out these points should be drawn up and fitted to the ground. The successive special situations must follow in logical sequence.

59. The director must have in his mind a solution of the various situations of the problem and must familiarize himself with all of the phases of the problem to the extent that he will be able to make reasonable answer to any question that may be propounded.

60. He must receive all the ideas presented by the members of the class; take out the good and tactfully discard the poor and indifferent. He must take care that he does not unduly criticize the members of the class when they make mistakes and faulty dispositions. Above all, he must never hold up a solution to ridicule.

61. *Preparation of the problem.*—Having determined upon the tactical subject to be illustrated, the next essential is a problem, clearly and tersely stated, logically drawn, and easily understood. The several tactical situations should follow one another in their natural sequence. Each should bring out the tactical points that it is desired to impress upon the members of the class. Long and complex situations, difficult for the average man to grasp, should

be avoided. They should be interesting and instructive, natural, and simple.

62. The next step is to fit the problem to a particular section of the terrain that may be available. In this connection it is well to draw up a tentative problem with its several situations. Then go out on the ground and fit the problem to it.

63. The director should carefully work out on the ground beforehand the several situations that he desires to develop. He should work out the details of all possible solutions and prepare himself to discuss the advantages and disadvantages of measures that may be proposed by members of the class and to state the solution that he, himself, prefers, with the reasons therefor.

64. A sufficient number of copies of the initial problem, together with the special situations, should be prepared so that a copy may be available for each member of the class. This is a more satisfactory method than the director explaining them verbally. Time is saved and misunderstandings avoided. The special situations are numbered serially and issued at the proper time, as the tactical walk progresses. It is a good idea to have an envelope in which to carry the cards or slips of paper bearing each special situation.

65. *General conduct of a tactical walk.*—The problem will ordinarily consist of a general situation and several special situations.

Take the class to the point where the tactical walk is to begin. Distribute copies of the problem and allow a few minutes for the members of the class to look over the problem and the terrain. The director then reads the problem aloud, and points out the topographical features and places that are referred to. The class follows from the copies in their possession.

Questions are asked by the director. One or more members of the class are required to make a brief statement of the problem, the idea being to make certain that every man is entirely familiar with the tactical situation under consideration. This insures a solid foundation on which the succeeding special situations may be developed.

66. The first special situation is then handed to members of the class. The director cautions them that each man is supposed to be the commander of the unit whose operations are to be considered.

The situation is read by the director; the members of the class follow from the copies in their possession. Again action must be taken to insure that each man thoroughly understands the tactical situation with respect to the operations of the unit under consideration.

The solution of the special situation is then proceeded with. This solution may be required to be reduced to writing; it may be given orally or a combination of the two systems may be employed.

67. For example: The special situation involves the preparation of a verbal field order. The director proceeds step by step with the

details of the matter to be included in each successive paragraph, arriving at a decision as to just what the wording should be.

- (1) Information of the enemy and our supporting troops.
- (2) Plan of the commander.
- (3) Distribution of troops and tactical order for each element.
- (4) Administration arrangements, where applicable.
- (5) Place of commander or where messages are to be sent.

Having determined upon the wording of each paragraph, the members of the class are required to write out the body of the order.

68. Where the members of the class have sufficiently progressed in their tactical training the preliminary discussion and solution may be omitted and the men be required to write out the body of the order based on the tactical situation. In this case the written solutions are collected by the director and redistributed to the class, taking care that no man receives his own solution back again. This is productive of good results, for if a man knows that his work is to be seen by another he will put forth his best effort and be more careful with his work. Again, the entire solution may be given orally and nothing reduced to writing. In this case the director brings out the elements by questions and discussion, and in the end one or more members of the class are called upon to state the contents of the body of the order. This method is excellent for the training of officers in the giving of verbal tactical orders.

69. The solution having been completed, the subject is opened up for discussion. The men are encouraged to ask questions and express their views on the various elements under consideration.

70. The class is then conducted to the place where the next special situation is to be taken up for solution, and here the same procedure as outlined above is taken. The tactical walk concludes with a short conference, in which the director makes a résumé of the problems, discusses the several lessons of the day, and shows the application of tactical principles to them.

71. *General rules.*—The following general rules should be observed as far as practicable:

(a) Weather and climatic conditions should be accepted as they actually exist on the day of the tactical walk.

(b) Interest is best maintained by bringing up a succession of instructive situations, each designed to teach some tactical lesson, dealing with each one concisely but thoroughly, and promptly passing on to the next. Long discussion and personal arguments between members of the class are to be avoided. Unimportant phases are passed over quickly, thus allowing the requisite amount of time to be devoted to those that are really worth while.

(c) Ordinarily four or five special situations are about all that may be profitably included in one tactical walk.

(d) All members of the class should be equipped with blank paper of uniform size to facilitate the handling of written solutions, message blanks, pencils, sketching equipment for making rough sketches on which tactical dispositions may be shown.

(e) Ordinarily large scale maps should not be used. One of the valuable features of the tactical walk is that all tactical decisions and dispositions are based on a study of the ground itself. If the members of the class are allowed to have large scale maps the exercise may resolve itself into the solution of a map problem whereby the advantage of the study of the ground itself is detracted from.

However, sheets of the United States Geological Survey maps should, if practicable, be obtained and issued, as it is desirable to accustom officers and noncommissioned officers to work with small scale maps and to familiarize them with this particular map.

(f) The number of men in a class should be limited to the number that one director is able to handle.

(g) The character of the problem should be suited to the rank and status of the members of the class. In each case they should be such as would have to be dealt with in war by the officers and non-commissioned officers participating.

TACTICAL EXERCISES.

72. The tactical exercise (one-sided or with opposing sides) provides a means for the training of officers and noncommissioned officers in practical troop leadership. They are enabled to put into practice with troops on the ground the tactical principles that they have learned during the course of training in map problems, map maneuvers, and tactical walks.

73. *Problems.*—The problems for tactical exercises should be drawn up in essentially the same manner as those prepared for map maneuvers and tactical walks; in fact, it has been found advantageous in the tactical exercise to employ the identical problems that have been worked out on the ground by means of the tactical walk. The officers and noncommissioned officers are familiar with the tactical situation, the conditions of the problem, and the tactical principles that are to be brought out and illustrated. They have worked out the solution of the problem and are thus prepared to go about their duties as leaders of troops in an intelligent manner. They are more competent to instruct and train their men.

74. *Conduct of the tactical exercise.*—The troops to participate in the exercise are formed at the point where the exercise is to begin. The commander is required to give his orders. The orders are usu-

ally given orally. Each subordinate commander is required to state his orders and instruction to his unit based on the order of his immediate superior. The troops are put into the proper tactical formation by the prescribed drill commands, and the exercise proceeds in accordance with the requirements of the tactical situations as stated in the problem.

75. As the exercise progresses the successive situations are taken up and the necessary orders and instructions given by subordinate commanders, and they are required to dispose and lead their units as they would under actual service conditions.

76. The position and disposition of the enemy may be assumed or may be outlined by a few men. In combat exercises the superiority of fire may be indicated to unit commanders by means of men occupying the assumed position of the enemy and displaying flags.

(a) When the flags are down (not showing), fire superiority rests with the attacking unit.

(b) When the flags are up and stationary, fire superiority is at the balance, and by taking up proper formation and giving the proper orders and instructions the unit commander may advance a part of his unit.

(c) When the flags are up and waving, fire superiority rests with the defense, and the unit commander must take the necessary measures to establish fire superiority.

The operation of the flags is controlled by the umpire, who follows behind the unit engaged in the exercise. He has a flag bearer with him, to whom he indicates the flag movements. The men representing the enemy simply move their flags to conform to that of the flag bearer with the umpire.

77. The exercise must involve the details of troop leading and the practical application of the principles of musketry range estimation and sight setting, target designation, fire distribution, communication and signals, use of cover, fire control, fire discipline, and, in general, the practical application of the features of fire and movement.

78. Where ground is available the tactical exercises in combat should then be carried out with the men firing ball cartridges at silhouette targets.

79. *Critique.*—At the conclusion of each tactical exercise the umpire will conduct a critique in which he discusses the tactical features involved in the exercise; points out the tactical errors committed and states what should have been done under the circumstances; calls on commanders of the several elements to explain their dispositions and discusses the conduct of the exercise in general.

